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A Cycle of Ceremonies in Orokolo Bay. *By F. E. Williams, M.A., B.Sc., Dip.Anth. (Oxford), Government Anthropologist, Territory of Papua.*

The present article is a brief sketch of a cycle of ceremonies which forms the subject of a book at this moment in the press.[1] The method of "writing round" a single institution, which has some distinguished precedents, implies an adequate treatment of the general social background; but in this brief article little of the kind can be attempted. I shall hope that a mere running description of certain of the main episodes of the cycle may be enough for my purpose, viz. to give some idea of the sheer dimensions of an undertaking of which a primitive Papuan people were capable.

Our subject is the *Hevehe*[2] cycle, so called because it centres round the kind of masks known by that name. It used to be practised, in a good deal of variety, by the whole Elema people, from end to end of the Gulf Division coast, but now in various parts it is extinct. Among the places where it still survives is Orokolo, and this article deals with the cycle as performed in that village.

Orokolo, which has approaching 900 inhabitants, straggles along the beach for nearly a mile in a series of seven separate communities. Each community has (or rather had, for only some remain standing) its own men's house, or *eravo*. These great buildings, an impressive sight indeed in comparison with the dwelling-houses which stand around them, are approximately 100 ft. in length. They are built after the hog-back style, but rise from a low rear to a height of 50 or 60 ft. at the forward end.

[1] *Papuan Masquerade*, Oxford University Press.

[2] Pronounce *hevehe*, with the accent on the first syllable, though when a speaker desires to be emphatic he will shift it to the second. In other dialects, *sevese*, *semese*.

The walls of sago-leaf thatching, which turns gradually from green to brown to soft grey, reach almost to the ground on either side. The building stands on innumerable piles in the sandy soil (a treacherous foundation which sometimes causes the whole structure to list), and its roof is supported by a series of hardwood pillars. The size and weight of these may be imagined, the leading pair standing perhaps 60 ft. above the ground; and the task of erecting them is accomplished by methods which argue well for the strength and ingenuity of the natives, as well as for their powers of co-operation. The interior is comfortably floored and the whole thing well-found.

I give this description at length because the *eravo* is something of an architectural feat and one of which a community is justly proud. In these modern days there is a tendency to replace the old-fashioned *eravo* (for they normally last only 8 or 10 years) by structures of the ridge-pole type, an effect of European influence. These are both smaller and easier to construct, and it seems difficult to regard the change as indicative of anything but decadence.

It is not necessary to endeavour to trace the origin of the strange form of architecture seen in the *eravo* proper; but it is significant that the great elevation of the forward part of the building serves a function. In the centre of the flat façade there is a door (permanently closed except at the climax of the cycle) some 30 ft. in height, the ordinary entrance for the men being a low aperture at the foot of it. This door is meant for the *hevehe* masks, and it will be found that every *eravo* where the cycle is well advanced is literally thronged with these gigantic structures. They are suspended from the roof by rattan canes and they hang shoulder to shoulder, their mantles reaching to within a foot or so of the floor.

The *hevehe* mask is a flat-faced, ovate structure of cane covered with bark-cloth. The back has a framework of basketry which fits over the wearer's head, while a long spine of sago midrib projects some 6 or 8 ft. above as a point, and some 2 ft. 6 ins. below, enabling the wearer to grasp it with his arm or between his thighs and thereby balance the top-heavy structure in the upright position. In its finished condition the back of the mask is draped with frayed sago-leaf, richly dyed, and a mantle of the same material hides the wearer's body. The face of the mask is embroidered with fine strips of split cane in various conventional patterns which are picked out in red, pink, grey, yellow and black against a background of white; and it is trimmed round the edges and down the centre with white

or coloured feathers. The whole thing is undoubtedly an artistic success, comic, grotesque, and beautiful. The largest I have actually measured was 24 ft. in length, counting that of the spike which surmounted it. The face of this mask measured 13 ft. 6 ins. The average specimen might be some 16 ft. overall. When the dancer is in action, belabouring his drum and dancing vigorously, his legs hung about with hollow seed rattles, and the voluminous mantle of red or yellow sago-leaf swaying to his movements, he presents a figure which is indeed imposing and might even be called magnificent.

But a very long time must pass before the masks are actually worn. In their rudimentary form they are simply plain hoops of rattan cane, and they must remain in the *eravo*, hidden from the sight of women, while they are built up stage by stage until they reach the elaborate form in which they are to make their appearance in the open. And every stage of importance in this process is ushered in by a ceremony.

The current explanation of the *Hevehe*[3] ceremonies is as follows. The sea and the rivers, Purari, Vailala, etc., are inhabited by certain great monsters—sharks, whales, leviathans—which are called *ma-hevehe*, or "water-*hevehe*." They are known by personal names, and at the beginning of a cycle one or more of these is summoned to visit the *eravo*. It does so by night, and leaves therein a number of its daughters. These remain within the building, eventually to make their appearance as the masks, which are called more specifically *apa-hevehe*, or "drum-*hevehe*," because their wearers invariably beat drums. At the first visit of the *ma-hevehe*, or sea-monster, the rudimentary loops of cane are deposited in the *eravo*; and thereafter, at each new stage of construction, the sea-monster pays a further visit. It is referred to as *hevehe-lau*, i.e. "mother of the *hevehe*," and the theory is that upon each visit she brings her daughters some fresh article of equipment.

The ceremony which represents the visit of the sea-monster is a strange one indeed. It is conducted on a dark night, and the part of the sea-monster is played by a horde of men who gather secretly on the beach, perhaps a mile away, armed with drums, shell trumpets, rattles, and weapons. It is a secret known only to adult males, and there are on every occasion some young men to be initiated. These are led innocently down the beach to where the monster awaits them, and suddenly the crowd of

[3] *Hevehe* (with a capital) stands for the cycle or cult; *hevehe* for the actual mask or the thing it represents.

men leap upon them out of their ambush in the darkness, bursting as they do so into the most indescribable concert of noises. The sea-monster then sweeps along the beach towards the village, turns in, and comes to a halt before the *eravo*. It is of course not to be seen ; it is represented merely by this unearthly blend of barbaric instruments with the shrieking and roaring of human voices. With dramatic suddenness this comes to an end as the monster halts before the *eravo*. The leaders enter silently and deposit the first two cane loops, representing the daughters (who prove to be much more numerous), and then the crowd of men take up the noise again and begin to retreat. They go down the beach, the noise growing fainter and fainter until it finally ceases. The sea-monster has returned to its element. Needless to say the women and children have made themselves scarce during this performance ; they have doused their fires and taken to the houses where they are supposed to be cowering under their mats.

This ceremony will be repeated from time to time during the progress of the cycle. Observers who first saw, or rather heard, it imagined that it was performed in its own right. But it proves to be part of the larger cycle : on each occasion the monster is visiting its daughters in the *eravo*, bringing some further gift.

We may now imagine the masks to have reached a fairly advanced stage. The time has arrived for a major episode in the cycle, that of the " New Door." The 30 ft. door in the front façade of the *eravo* has hitherto been built in. It has now to be replaced by one that will open when the time comes. This is hinged with loops of rattan down one side, but it will still remain closed for an indefinite period.

This ceremony of the New Door is one which attracts visitors from far and wide, for various *eravo* respond to the invitation to bring dance parties, which involves a good deal of work and trouble for them by way of preparation. The visitors camp under the coconuts at some distance, and when the moment arrives move out to the beach and advance from east and west to mass themselves opposite the *eravo* where the new door has already been made. Apart from the magnificently befeathered dancers and their crowds of supporters, male and female—the women and girls are jubilant at the prospect—the great feature of the occasion is the first appearance of the *eharo*. These are masks of another kind. They are of infinite variety—mythological, totemic, purely fanciful. Space does not permit of adequate description, but many of them are surmounted by the

most lively models of totemic creatures—birds, reptiles, fish; even dogs, cuscus, roosters, mushrooms, jelly-fish.

The great crowd, with the dancers and the *eharo* in their midst, drive into the village as if they meant to take it by storm, the *eharo* models seeming to float above them in the clouds of dust, the hornbills realistically flapping their wings. Then they disperse; the dancers form themselves into circles before the *eravo*, to dance there from eve till morn; and the *eharo* go careering to right and left amid the throng. Presently some of these will find live pigs placed in their path, and once they have leapt over them they must enter the *eravo*. The *eharo* mask, with all its feathers and the shell ornaments which hang on its breast, becomes the property of the man who has given the pig, and the pig becomes the property of the man who, by invitation, provided the *eharo*.

I have dealt to the best of my ability with the obscure question of the meaning of the *eharo* in the book previously referred to. I make no attempt to do so here. It is my purpose merely to give some hint of the brilliance and animation of this scene, and to suggest its scale. We must remember that the *eravo* belongs to a community of only some hundred strong. At a ceremony of the New Door there are likely to be between two and three thousand people present.

The dancing of the visitors on this occasion has been interrupted during the night by a further visit of the sea-monster, this time bringing with it a wisp of sago-leaf as a signal that the preparation of the sago-leaf mantles may go forward. And now individuals may proceed to further work on their respective masks. It is a desultory business; many are behindhand already; and furthermore it is possible at most to deal with two or three at a time, for there is little space to lay them out inside the *eravo*. Consequently a long time will pass before they are all ready for their final appearance.

Before this can happen there are three preliminary descents in which all the masks (they have hitherto remained in the dark interior of the *eravo*) are brought outside. This is purely for convenience: they are to be subjected to a series of working-bees in order to bring them up to scratch for their state appearance. At these times the women, of course, absent themselves, for they must never set eyes on a mask except as a living creature dancing and beating a drum.

The first of these three descents is called facetiously "Stretching the Backs"—the *hevehe* have grown stiff from their long immurement and

desire exercise. Its real purpose is to provide them with the wicker-work and bark-cloth backing which some of the masks still lack, as well as to effect any necessary repairs(for they have been made so long already that the materials may here and there have given way). The work is done in the open, and at its conclusion the wearers of the masks (each has its particular owner, and each is made for a particular wearer) must try them on. This rehearsal, however, is only for those who have been previously initiated. The younger wearers, who have never yet seen a mask in the making, are to be initiated at a later date. The rehearsals over, the masks are put back into the *eravo*, the tell-tale sweepings are removed, and the women return. There follows an interesting ceremony—the presentation of ginger-leaf and special coconut spoons to all the wearers, young or old. For their period of fasting commences now : they must undergo a number of food restrictions so that when the time comes they may dance well and not allow their masks to topple over. The ginger is to reinforce their fasting stomachs ; and the private spoons obviate the risk (always present where table manners permit of sharing utensils) of contamination by those who are not under tabu.

The second descent goes by the picturesque name of " Rainbow-Painting." The masks are brought out again to be decorated with the soft and agreeable colours that do so much for their appearance.

And the third, which is very close to the finale, is called the " Binding of Feathers." The highly-prized feathers are brought out from their bamboo or palm-spathe containers and affixed to the faces of the masks ; and these are at last draped with the mantles of coloured sago-leaf which have been completed meanwhile. This final titivation of the masks is followed by the real initiation of those youths or boys who are to wear the masks for the first time. As they are led into the village they are subjected to a perfunctory and good-humoured rough-handling, and a mask is unexpectedly thrust on the head of one or two by way of example. Then, when they have all seen what a *hevehe* really looks like (though there is no reason to suppose that they did not know pretty well before), they must one and all try on their particular masks and dance to the tune of abuse or, less often, praise which is always heard on such occasions. Then once more the masks are hidden in the *eravo* and the women and uninitiated children return.

But events are now moving on fast. The same evening there occurs the ceremonial bathe of all the wearers, together with scores of shrieking

girls. They splash and play and shout in the calm water, and soon their voices come together in great united cries which sound peculiarly impressive in the still evening. And as they come out they join in the solemn chant which the older men, busy at some work on the *eravo*, have begun, until the whole crowded village joins in the song, which is indeed an inspiring sound.

Then follows the fire-fight. The bathers having divided themselves into two forces, east and west, suddenly light torches of dry, inflammable coconut-leaf and dash into the fray, beating at one another amid showers of sparks, while lighted torches fly through the air like rockets. When the last torches have been extinguished there is the formal presentation of fire to initiates, the maternal uncle officiating, as he always does on such occasions, sprinkling a few sparks on the boy's naked body while he reads him a lecture on the use of fire and on good behaviour in general, and finally presenting him with a shell ornament.

The following morning sees the presentation of shell ornaments to the women concerned in the cycle in this *eravo* ; and then comes the gory, but to all concerned most agreeable, spectacle of the slaughter and butchering of scores of pigs. And that afternoon there occurs one of the most brilliant pieces of pageantry in all the cycle. the emergence of the Yellow Bark-Cloth Boys.

Like certain other episodes this is, I believe, an interpolation, though the reasons for that view cannot be entered into here. It will be enough to say that all the wearers of the masks are at this juncture called Yellow Bark-Cloth Boys, for they have secretly, within the *eravo*, dressed themselves in costumes of bark-cloth dyed in fresh bright yellow. A scaffolding has been erected in front of the building, and at about 4 o'clock the old man who has been the life and spirit of the whole show, almost a commanding officer, approaches the door and beats on it, uttering the cryptic words, " Who has stolen the bark-cloth of my grandsons ? " At that the barriers are burst down from within and a veritable swarm of men and boys leap out to climb the scaffolding, where they form a living wall of gorgeous yellow.

It is at this moment that the dancers who have been summoned for the occasion, together with a great number of *eharo* masks, charge into the village. Their supporters swarm about them in hundreds and the armed men, in excess of high spirits, discharge arrow after arrow over the heads of the Yellow Bark-Cloth Boys into the face of the *eravo*.

The boys now climb down ; the *eharo* disperse ; the dances form before the *eravo* ; and the crowd presses round to see the bestowal of shell ornaments on the male participants—a spectacle which perhaps arouses among the natives more real interest than any other in the cycle. And now, by the light of fires and coconut flares, the dancers go on, with their orchestra of drums and voices and surrounded by throngs of women, until, at about 2 a.m. they are scattered by the final visit of the sea-monster. This time it brings the culminating gifts to its daughters—their drums. And after the last sounds of its retreat have died away the stillness is suddenly and astonishingly shattered by a thundering of drums from within the *eravo* itself. The daughters of the sea-monster have at last received their playthings and are joyfully beating them. The noise is amazing ; the *eravo* and the ground about it seem to tremble ; and still more amazing is the fact that the uproar goes on without intermission, almost without slackening, till well nigh 5 o'clock. It is produced by some 50 drums, with the *eravo* for sounding-box, in the hands of as many old men, continually stamping with rattle-bound feet on the floor while relays stand ready at hand to take over when they are exhausted.

Towards dawn the women who have so long awaited the *hevehe* gather before the *eravo* and begin to demonstrate, an excited and unruly crowd. Anxious as they are to see the *hevehe* descend, they greatly obstruct the Yellow Bark-Cloth Boys, who are now pouring into the building. But at last they are all inside, and in the darkness each is getting into his mask.

Now as daylight is coming on some men make ready to open the door. They haul on the long lengths of rattan cane attached to the further edge of it and at last, with a rending of timbers, it swings slowly open. As it does so it reveals, framed against the dark background, the tall figure of the first *hevehe*, a delicate ethereal vision in the half-light of early morning, one that might come straight from fairy-land. For a moment it pauses on the threshold and a silence falls over the crowd. Then with a great thump of the drum it starts down the broad gangway that leads to the ground. Behind it come the others in apparently endless sequence until the sun is almost risen to shine on the last of them. Each, as it sets foot on the ground, is welcomed by its own party of adoring females, who dance attendance upon it through the village and out onto the beach, their faces wreathed in smiles and their eyes fixed upon their gigantic dancing-partner's feet. It is for them a moment of bliss and infatuation—the mere sight of them

is enough to dispel as ridiculous the notion that womenfolk are put upon by the mask ceremonies.

I shall not attempt to describe the month of brilliant masquerade which follows, when day after day, morning and afternoon, the *hevehe*, worn by all and sundry, come out to dance. And I shall hurry over the scenes which bring this great drama to a close.

At last the day comes for the *hevehe* to retire. All of them have come out onto the beach together, and one after another they give up their drums and fall in, advancing in single file from east and west. Opposite the *eravo* the lines meet and turn inwards, and the masked men advance two abreast in slow procession till they reach the foot of the ramp which leads to the *eravo*-door. One by one they mount it and enter for the last time, all except the half dozen in the rear. These, worn by robust men who know what is in store for them, find themselves cut off by a ring of women; and then begins a sort of violent game of ring-a-rosy, the *hevehe* throwing themselves repeatedly against the wall of the women's linked arms and as often staggering back to the centre. At length they break through, or are allowed to break through, and as the last makes its way up the gangway, the women—there are hundreds of them in a dense crowd—raise their arms above their heads and burst into a solemn cry of farewell.

Then there follows the " Feast of the Birds," an entertainment for those men of other villages who have worn the masks from day to day and the women who have danced with them; and, as this is just ending, the *eravo* door, which has been closed on the *hevehe* in the morning, opens for the last time, and the four leading masks emerge. A young man, son of the chief magician of the *eravo* and acting in his stead, confronts them, fits an arrow to his bow, and deliberately shoots the first mask through. Realistically it topples and falls as if mortally wounded, and after it the other three; and the women, looking over their shoulders at this tragic end of their beloved *hevehe*, fly from the scene with cries of lamentation.

After this symbolic slaying all the masks are brought out, thrown down, and ruthlessly stripped of their feathers and their sago-leaf mantles, the only things to be saved from destruction; and then they are taken into the bush and heaped up for the burning. An old man sets fire to the great pile of dry cane and bark-cloth, and the products of years of art and industry are in a very few moments reduced to ash.

A number of episodes still remain. The " souls " of the *hevehe* have to go down to the sea, and they do so that night. A party gather in the

eravo itself to create there all the fearsome noises proper to the sea-monster and proceed out of the village and down the beach till the last sounds fade from hearing half a mile away.

Some few days later various remnants, the mats, head-rests, etc., allegedly used by the *hevehe* while in the *eravo*, as well as clippings from their mantles, have to be cast into the sea ; and for this purpose all the male participants in the cycle file out onto the beach, turn, and wait with their eyes out to sea while four old men cry out to the sea-monsters by name. Suddenly some youth raises a shout—he has seen a black fin in a rising wave—and instantaneously the whole line, hundreds strong, leap forward into the water, casting the remnants right and left to be swept away by the current.

After this glorious bathe they undergo a purification and their period of fasting is over. But there is still the hunt for a bush pig, without which the *Hevehe* cycle cannot be brought to a close ; there is still a ceremonial clean-out of the *eravo* ; and in the old days there was still the last rite of a man-hunt.

When all is finished the *eravo* stands strangely empty. It is still used as sleeping-quarters and club-house, but its real occupants have departed. Gradually it falls into disrepair and finally into ruin. Then, if the community feels ready, it is time to rebuild, to provide another mansion for the *hevehe* ; and then the cycle may begin all over again.

I shall give only the briefest interpretation of this cycle. The current theory, as far as one exists at all, has already been outlined ; but some difficulties stand in the way of accepting it as an adequate explanation, for it leaves a good deal uncovered. It is found that each and every mask is an identity with a personal name and certain mythological connections ; and a close examination of a great number of these convinces me that the *hevehe* are representatives of the Story Folk, i.e. the immortal characters of Elema myth who still inhabit the sea and sky and bush in those varied forms taken by the innumerable Elema totems. The fact that the great majority of these are thought to belong to the bush environment rather than the sea raises an important question and makes it apparent that the current explanation (viz. of the sea-monster and its daughters) may be really ulterior. But that is a matter which will not detain us here.

My purpose, as I have already stated, is to give some idea of the sheer magnitude of this cycle. And it may be mentioned that at the masquerade

which I had the good fortune to witness in 1932 there were actually 122 *hevehe*, each one of them a highly finished product of art, workmanship and industry. In another *eravo* which is waiting now for the finale I counted in its dim and crowded interior 139 complete masks.

The most astonishing thing about the cycle, however, is its duration. It is ascertainable that all of the seven *eravo*-communities in Orokolo began their last cycles in the year 1913 or 1914, when there was a general move onto a newly-formed strip of coast and the simultaneous building of an equal number of new *eravo*. One of the cycles then commenced reached its end within six years, which was regarded as very lucky and a good performance. The next I saw myself concluded in 1932—eighteen years after it began; the next ended in 1934—twenty years after; and four still remain unfinished—twenty-four years after. Only one of these is in readiness for the finale; the others are a long way from it. There is no doubt, of course, that modern conditions are unfavourable, but there is ample evidence that even in the old pre-European days the *Hevehe* cycle was a thing of years and years. I have concluded that the average duration was between ten and fifteen years, and this is possibly underestimating it.

The reason for delay is to be found in deaths among the villagers which automatically placed a tabu on the drum and thus brought to a temporary end anything which had to do with the drum. In this way *Hevehe* celebrations were continually held up. It is not, therefore, as if the cycle were actively in progress through fifteen years. But it was nevertheless an end in view, a great undertaking which the people had always before them. It goes without saying that any community which brought it to a successful termination had reason to be proud of their achievement.

Readers who are at all familiar with native conditions will realize the amount of energy and labour which would go into the building of *eravo*, the manufacture and decoration of masks and costumes, the conduct of the ceremonies, and the entertainment and feeding of a thousand visitors. The *Hevehe* cycle, in its extent and complexity and the degree of effort and organization which it implies, is a thing which I personally view with considerable admiration; and the more I have learnt about it the greater my admiration has become. It will be a sad thing if the rising generation of Orokolans have lost the spirit which their fathers had, and are unable to face this great undertaking again.

F. E. Williams.

Australia: Material Culture. **Mountford.**

Phallic Stones of the Australian Aborigines. *By C. P. Mountford, Acting Ethnologist, South Australian Museum.*

From time to time examples of carved stones, resembling the human phallus, have found their way into the collections of individuals and museums. Unfortunately little is known about these curious specimens, and it is with the hope of stimulating further inquiry that this short paper is written.

Campbell[1] described four such objects, two of stone, one of wood, and one of moulded and baked clay; and was able to give a short description regarding their use. One specimen at least, to Campbell's knowledge, was made by a native of the West Kimberley country.

Eight stones, having phallic significance, are described in this paper, six of them are in the collection of the South Australian Museum. Five of these are figured, i.e. AB, F, G, H, K. The remainder, C and DE, were collected by the late Dr. Herbert Basedow, and are at present in the ethnological collection of the Institute of Anatomy, Canberra.

Description.[2]

AB, collected in North Western Australia by Mr. W. W. Dodd, was carved from a ferruginous sandstone and is 6·7 cm. long and 3·6 cm. major diameter. The resemblance to a subincised penis is evident.

A similar example was obtained by Mr. R. L. Herbert from the natives of the Kimberley district of North Western Australia. This example (not illustrated on account of its close resemblance to AB), is somewhat larger, being 12·6 cm. in length and 5·3 cm. in diameter. Both stones show deep scoring within the groove that indicates the subincised urethra.[3]

D and E are the upper and lower surfaces of an engraved stone of phallic significance, collected in North Western Australia by the late Dr. Herbert Basedow. It is oval in section, 16·3 cm. long and 2·8 thick. In this example the design has become conventionalized, the naturalistic glans penis of A being indicated only by a curving line. The deep incision in B is absent, and the scoring within that incision has developed into a

[1] Campbell, W. D., *Man*, xxi, 10, p. 145.

[2] The descriptions of AB, F, G, H and K are based on details in the ethnology register of the South Australian Museum.

[3] See "a" on B.

CEREMONIES IN OROKOLO BAY.

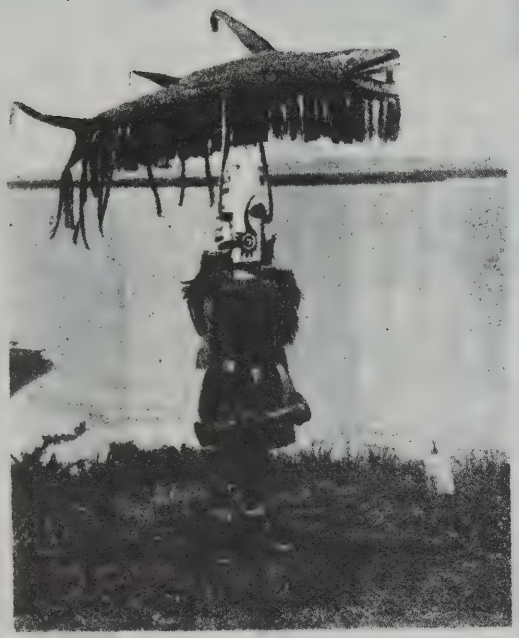
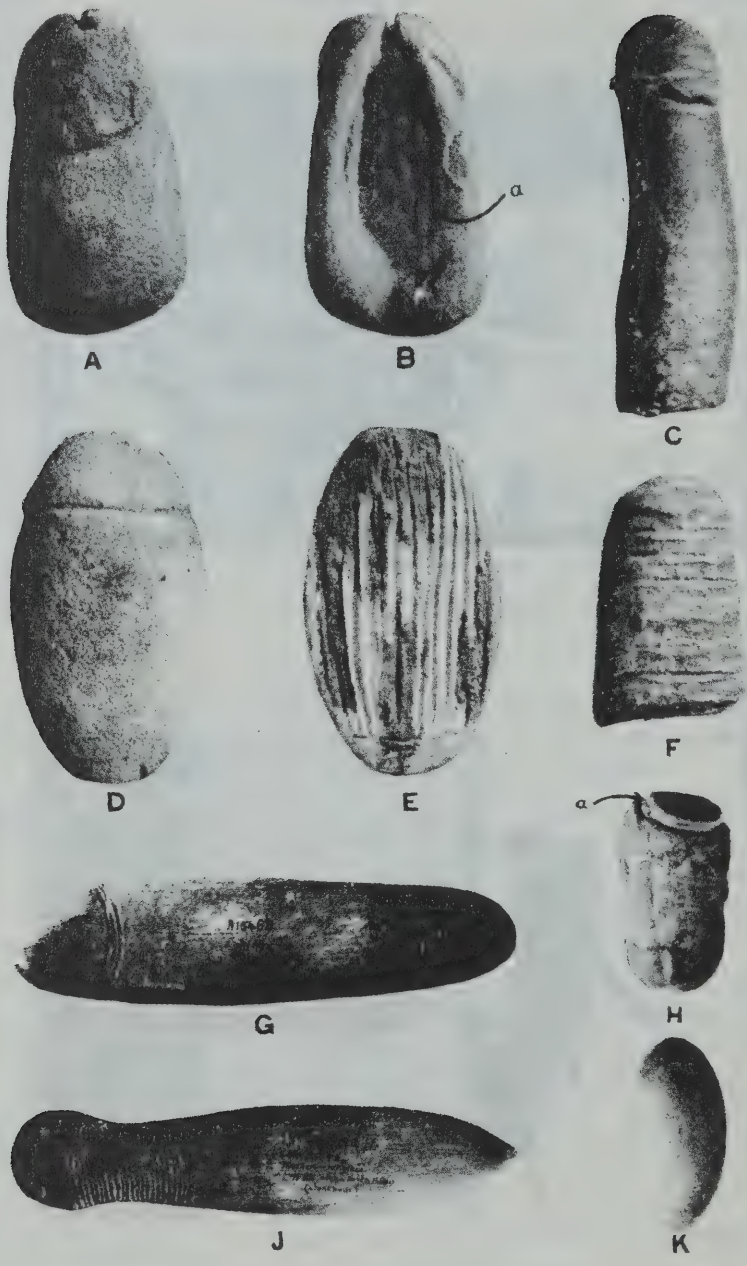


Fig. 1. Man wearing ehavo *mask.*

Fig. 2. Wearer rehearsing in a heveho *mask at the first preliminary descent.*



Phallic stones of the Australian Aborigine.

series of longitudinal grooves. It will also be noticed that the grooves start from the top of the phallus, as in AB, and finish at a curving line at the bottom of the stone. The line is probably indicative of the scrotum.

C is a naturally produced stone—probably portion of a stalagmite—that bears a remarkable resemblance to a human phallus. It is 19 cm. in length, and 5·5 cm. greatest diameter. This was also collected from the north-west of Australia by the late Dr. Herbert Basedow, who informed the author that the aborigines believed it to be the phallus of a mythical ancestor.

G is a stone tjurunga-like object belonging to the Luritja tribe of Central Australia, and represents a circumcised penis. J, a symbolical form of a stone knife, is associated with G. Both of these objects belonged to a totemic place called Mereini and were obtained from the aborigines by Mr. H. H. Heinrich. The stones are 23·5 cm. in length and 1·5 cm. thick.

F is a conical stone 5 cm. in length, collected at the McDonnell Ranges in Central Australia, and represents a phallus. This example bears a certain resemblance to the cylindro-conical stones of the River Darling country. Apart from its shape, a shallow concavity in the base of the stone, is another feature of resemblance with the cylindrical-conical examples.

H is a curiously eroded pebble, heavily coated with red ochre, 9·2 cm. in length and 5 cm. in width. This example, which was called *retaka-bara* in the native tongue, was collected in the McDonnell Ranges of Central Australia and, according to the natives, represents the male organ. The groove " a " probably suggested this meaning.

K is a waterworn pebble from the McDonnell Ranges said, by the aborigines, to represent the penis of an ancestor of the Aranda tribe. This is unmarked in any way.

Discussion.

The stones described in this paper are of unusual interest. Firstly they show a progressive conventionalization in the representation of the male organ. For example C, although of non-human origin, has been retained as a symbol of a phallus because of its resemblance to that organ. In AB, the object has been carved in stone, and is somewhat true to form, the glans penis and the subincised urethra being clearly shown.

In DE, however, the significance is not evident without some clue. The conventionalization of the cuts in " a " in B to a series of grooves in E

is of interest. Likewise, with G, the only guides to the true significance of the object are the three grooves at one end. On H, the projection on the top has some slight resemblance to the glans penis, but the imagination is more strained to see any resemblance between F and the organ in question. However, with K, which is a simple waterworn pebble, all such resemblance disappears, and the symbolism has reached its most abstract form.

Use.

At present there is little evidence that would indicate the use of these curiously carved stones. The fact that Campbell[4] records that they were made by the aborigines of comparatively recent times proves that such objects are part of the present day culture. He also gives the following short note regarding their use:

> "Among the secret articles used by the Australian aborigines are models, or representatives of the male organ of generation as they appear after the rite of circumcision, or subincision, or both have been performed . . . it appears that these objects were used to impress upon the initiates the nature and importance of the rite . . . They appear to have been used for no other purpose."

This statement could, in part, apply to AB, DE and particularly to F and G, where we have the association with the ceremonial knife with which the operation is performed, but the writer feels sure that if Campbell had pushed his inquiries further he would have found such objects linked with the doings of some mythical ancestor and thus with the legendary history of the tribe.

Quite recently some natives of the Unyamatana tribe of the Northern Flinders Ranges of South Australia related a story to the author that illustrated how a stone of natural origin became associated with an ancestral being, and thus with the tribal mythology.

In far-off mythical times a mythical human being, known to the women as Bulkana, travelled through the tribal country and when in the vicinity of Mt. Serle contracted a disease in his genitalia, which finally

[4] *Op. cit.*

caused that organ to drop off. About ten years ago two aborigines, whilst travelling past this place, found a stone that resembled a human penis. Knowing the myth of Bulkana, these two men brought the stone to the tribal elders, who, after some discussion, decided that it was the male organ of that being. As this ancestor was responsible for the body scarring ceremony, a particularly secret ceremonial, his supposed phallus was not shown to the women and uninitiated youths and, for safe keeping, was buried in the initiation ground, a place where only men of full tribal status are allowed. Although a number of natives of this tribe have told the author the story surrounding the finding of this stone, he has not, as yet, been permitted to see it. A longer association with the tribe will, no doubt, gain him that privilege.

Distribution.

With our present limited knowledge it would seem that these phallic stones belong only to the tribes of Central and North Western Australia. Six have now been recorded from the north-west, and five (only one of human handiwork) from Central Australia.

There is little doubt that further investigation will increase our knowledge of the range of distribution of these objects and add further information concerning their use.

C. P. Mountford.

Australia : Material Culture. **McCarthy.**

The Grooved-Conical Stones of New South Wales. *By Frederick D. McCarthy, Dip.Anthr. (Syd.), Department of Anthropology, Australian Museum.*

The eight specimens described in this paper are stone objects of an unusual type about which, unfortunately, there is no information regarding use and function.

One was described briefly and figured by W. W. Thorpe (*Rec. Aust. Mus.*, XVI, 5, 1928, 248, pl. xxvii, fig. 2) in 1928, and he mentioned two others in 1932 (*Rec. Aust. Mus.*, XVIII, 6, 1932, pl. xxix, fig. 3), one of which cannot be included in the group because it lacks a pointed end and is really a grooved axe. There are now three specimens in the Australian

Museum collection, and five in the Edmund Milne collection at the Institute of Anatomy, Canberra. A detailed description of these specimens is as follows :

(1) A.M. No. E.13314. Perfectly symmetrical and tapering from the proximal end to the point. Oval in section. Hammer-dressed, and the punctures are rather coarse. It has a brown patination. Proximal end is rounded. A large flake has broken off the butt, and percussion marks are visible on the remaining narrow strip. The point bears signs of use by percussion, and the surface immediately around it is polished as though from use. The two grooves present are both well defined, the anterior groove being wider and deeper than the other ; they are from 2 to 3 cms. wide, the anterior groove 5 mms. deep. It bears five plough abrasions. Length 26·7 cms., greatest diameter 9·5 cms., weight 6¼ lbs. Found on the surface at Condobolin, N.S.W. Presented in 1905 by Mr. C. J. McMaster.[1]

(2) A.M. No. E.32593. A well finished specimen, hammer-dressed, and bears a brown patination. Circular section, distal end flattened on one face. Proximal end rounded, tapering from groove. The butt bears percussion marks, and is flattened as a result of such use. The point bears percussion marks, and the contiguous surface is polished 3 cms. backward on the flattened side but not elsewhere. The groove is 3 cms. wide and 6 mms. deep. It bears five plough abrasions. Length 21 cms., greatest diameter 9·5 cms., weight 5¼ lbs. (See Fig. 3, Plate T.) Ploughed up in the Bogan Gate district, New South Wales. Presented in 1929 by H. K. Rawson.

(3) A.M. No. E.45300. Well finished by fine hammer-dressing. Oval in section, flattened on two surfaces, on one of which there is a depression extending from the edge of the posterior groove to the butt ; this depression bears percussion marks. Not patinated. There are also several small and rough depressions round the butt which have not been hammer-dressed ; they were probably on the stone before it was fashioned. The butt has weathered and is stained a brownish colour so that it cannot be decided whether it bore percussion marks. The point and the surface round it are smoothed. There are two grooves ; the anterior one is 2·5 cms. wide and 4 mms. deep, is polished and well defined all round except in the depression,

[1] Thorpe, W. W., *Rec. Aust. Mus.*, XVI, 5, 1928, 248, pl. xxvii, fig. 2.

Explanation of Figures.

Grooved conical stones: Fig. 1, No. 3; Fig. 2, No. 8. Fig. 3, No. 2; Fig. 4, No. 6. Fig. 5, showing shaped butt of No. 4; Fig. 6, point of No. 5. Fig. 7, point of No. 7. Fig. 8, blade of No. 8.

and is a deeper colour than the rest of the surface ; the posterior groove is hammer-dressed only, shallow, and barely discernible on the flattened surfaces of the artefact. Length 25·5 cms., width 10·5 cms., thickness 5·5 cms., weight 5¾ lbs. Found on the surface at The Springs Station, Dubbo, and presented in 1938 by Mr. John Baird. (See Plate T, Fig. 1.)

(4) Canb. No. 134. The crudest specimen of the series, only partially hammer-dressed, and has a buff patination. Spherical in section. The butt (Fig. 5) is flaked on three facets so as to form a hammering face, is rectangular in shape, and bears percussion marks. The point is slightly polished and is not central in position. The groove is 3·5 cms. wide, 6 mms. deep, and fashioned by hammer-dressing. Several large flakes have been removed by percussion on opposite places on the rounded surface on the anterior side of the groove. The specimen bears three longitudinal incisions, divided by the groove, which are from 7 to 9 cms. in length, another 3·5 cms. long on the proximal end, and two each 1 cm. long near the point. Length 21 cms., greatest diameter 8 cms., weight 3 lbs. Ploughed up at Forest Reefs, Orange district, in 1907.

(5) Canb. No. 135. A poorly shaped specimen, made from a stone with two flat surfaces. One lateral surface has been rounded by hammer-dressing from the point to the groove, and a large flake has broken off the proximal end (it has not been struck off) ; the other lateral surface is also rounded, has a natural depression between point and groove, and is hammer-dressed only as far as the groove for the proximal is a flattened natural surface. The surface is hammer-dressed all round the point end, while the two flattened surfaces and most of the proximal end of the specimen are the natural surface pitted by weathering. The section is flattened oval. The point (Fig. 6) is not central in position and the surface round it is not smoothed enough to obliterate the punctures as on other specimens. The groove is up to 4·5 cms. wide and very shallow, especially on the flattened surfaces. The hammer-dressed portion is only very lightly patinated. Length 28·5 cms., greatest width 8·5 cms., thickness 6 cms., weight 5½ lbs. Found at Hobby's Yards, Lachlan watershed, New South Wales.

(6) Canb. No. 583. The longest specimen of the series, slightly cornute in shape, and well finished by neat hammer-dressing over the whole surface. Spherical in section. The butt is not rounded and several large and a number of small flakes have been broken off it as a result of its use percussively ;

these flake marks are not hammer-dressed. One face of the proximal end is flattened as a result of percussion, and the concave surface has a depression, similar to mortars though very shallow, from the groove to the point. Except for a narrow strip, the surface contiguous to the point is polished as far back as 3 cms., and the point bears what appear to be several percussion marks. The groove is 2 cms. wide and 2 mms. deep, hammer-dressed, and well-defined. The artefact has a light brown patination, darker in colour on the rounded surface than on the concave area. (See Plate T, Fig. 4.) Length 31 cms., greatest diameter 9 cms., weight 6¾ lbs. Ploughed up by Mr. W. Hall in 1916, 80 yards south of the Lachlan River, at Wulla Wullah, 12 miles west of Forbes, New South Wales.

(7) Canb. No. 584. This specimen, and No. 583, is finished with finer hammer-dressing than most of the other examples, and it has a reddish-brown patination. Spherical in section. The proximal end is flattened but gently convex on two faces extending from the groove to the butt, and one lateral face has a large natural depression not hammer-dressed. The butt is longer than wide and bears no signs of percussion. The point (Fig. 7) bears percussion marks, and a flake 1·5 by 1·25 cms. has been broken off apparently as a result of this use. The groove is 2 mms. deep, very wide, and merges into the body of the artefact on both sides. Length 20·5 cms., greatest diameter 7 cms., weight 3¾ lbs. Found at Daroobalgie, near Forbes, Lachlan River, New South Wales.

(8) Canb. No. 76. Differs from the other seven specimens in that the whole surface is polished, without any signs of hammer-dressing. One surface has large, rough natural depressions on both sides of the groove. Flattened oval in section. Bears a light patination little different in colour from the greenish material used. At one end (Fig. 8) it has an adze-type ground-edge blade, with concave facets, and the edge is not central in position. The edge is gapped as though from use. The point is rounded and also polished. The groove is 2·5 cms. wide, shallow, polished, and is a deeper colour than the surface of the artefact generally. Two indentations caused by percussion are situated between the groove and the blade. (See Plate T, Fig. 2.) Length 25·5 cms., width 7·5 cms., thickness 5 cms., weight 3½ lbs. Found at Gundary, Wollondilly watershed, Goulburn, New South Wales, in 1890.

Analysis.

Their distribution is limited to eastern New South Wales (Text-fig. 1) on the periphery of the area in which cylindro-conical stones are found.

Three were ploughed up and five found on the surface of the ground.

The materials are all hard, compact, igneous rocks.

The technique employed in shaping and finishing seven of the specimens is hammer-dressing, and on one polishing.

Six have one encircling groove, and two have double grooves. The grooves on six have been indented by hammer-dressing, on one (E.45300),

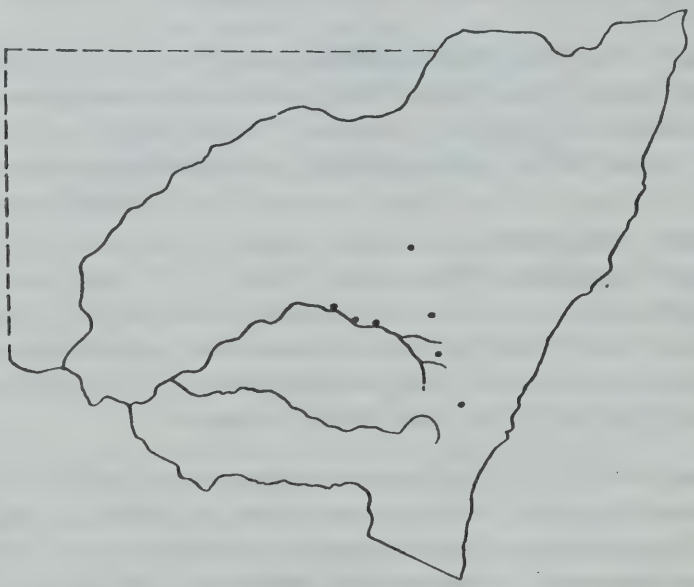


Fig. 1. Distribution of grooved conical stones.

one groove is slightly polished over the hammer-dressing and the second groove is hammer-dressed, and on one (76) the groove is wholly polished.

They vary from flattened oval to circular in section.

Only one bears a ground-edge blade.

The surface immediately surrounding the point on six is smooth; this "polishing" is a result of the manner in which they have been used and is not due to grinding.

Four have been employed for percussion purposes (as pestles ?) on the butt, and as a result large flakes have been broken off three (E.13314, Nos. 134 and 583). Two of these four have percussion marks on their point.

Four bear percussion marks on the point, and as a result a flake has been broken off one (No. 584).

Flakes have been struck off the body of one (No. 134).

Only one (No. 134) bears longitudinal incisions.

Three (E.32593, E.45300, No. 583) have depressions in which the surface is the same as that of mortars and appears to be due to pounding. Only one bears percussion marks elsewhere on the surface (with the exception of point and butt).

Probable Use.

In the absence of any reliable information the probable use or function of these artefacts cannot be conjectured apart from the fact that they are of ceremonial significance. The occurrence of percussion marks on the points of some specimens may be of some importance in this connection, and it is probable that the use of the butts of some specimens as percussion stones is a secondary usage.

Affinities.

The grooved conical stones have affinities with the following artefacts :

(1) They have the following features in common with the well-known cylindro-conical stones of western New South Wales : (*a*) cylindro-conical form, (*b*) pointed end which may bear percussion marks, (*c*) longitudinal incisions, (*d*) the techniques—hammer-dressing and polishing—employed. These common characters suggest a relationship between the two sets of artefacts ; an important difference is that the butts of the majority of the cylindro-conical stones are either concave or flat, and only one in the Australian Museum collection is rounded, but none of the grooved conical stones has a concave butt, the majority being rounded.

(2) The pestles associated with the prehistoric mortars in New Guinea are cylindro-conical in form, and either pointed at one end and used for percussion at the other, or pointed at both ends ; they were fashioned by hammer-dressing, but have a transverse ridge instead of an encircling groove.

(3) The encircling groove is characteristic of ground edge axes widely distributed in eastern and central Australia.

(4) The pointed cone-shaped end is characteristic of polished round-axes (in section) in New Guinea, Melanesia and Polynesia, and hammer-dressed round-axes in eastern Australia; it would appear to be of more importance on the Australian grooved conical stones than as an unused butt, as on these axes.

(5) The shallow mortar-like depressions on three of the grooved conical stones occurs on some of the shorter cylindro-conical stones, on grooved ground-edge axes from Victoria, lower Darling River, and south-western New South Wales, and on the large tanged implements as noted by Mr. D. A. Casey (*Mem. Nat. Mus. Vict.*, No. 9, 1936, 93-94).

Antiquity.

The fact that hammer-dressing was employed to fashion seven of the grooved conical stones is important as a means of dating them approximately; this technique spread from south-east Asia into Malaya and Oceania in early neolithic times (McCarthy, F. D., " Preh. of Australian Aborigines," *Aust. Jour. Sci.*, I, 2, Oct., 1938, 39-40), but how long a period elapsed before it was introduced (probably from New Guinea) into Australia is not known.

Hammer-dressing has also been employed in the eastern half of the continent to finish off ground-edge axes (grooved and non-grooved), cylindro-conical stones, millstones and mullers, mortars and pestles, and tanged implements. (There are no records of their manufacture or use having been witnessed.) Although the cylindro-conical stones are found associated with burials, and the axes, grooved conical stones, and tanged implements are often ploughed up on farms, this cannot be accepted as decisive evidence of antiquity, because examples of all these artefacts are commonly collected on camp-sites which have every indication of having been formed by the aborigines living in the country at the time of white occupation.

Further, patination is not a reliable guide. The patination on the grooved conical stones, and on some of the tanged implements and cylindro-conical stones, is no greater than on many ground-edge axes, including the hammer-dressed and grooved forms, and hundreds of these axes are found without any patination.

The utilitarian artefacts (axes, grindstones, percussion stones) were made and used from the time when the technique was introduced until

European settlement extinguished the aboriginal culture. But this may not be true of the tanged implements, grooved conical stones and cylindro-conical stones, which are of ritual importance, for some specimens of the latter group are polished over the hammer-dressing, and thus exhibit the two most advanced techniques for treating stone in Oceania. It would appear, then, that these three types functioned in recent times, and do not belong to an " ancient culture " in Australia. Their respective antiquity can be decided only by stratigraphical evidence obtained by archæological work carried out in a scientific manner.

Terminology.

In view of the man points of resemblance between the artefacts described in this paper and the cylindro-conical stones, the term grooved conical stone is adopted. The term " pike " is entirely unsuitable.

Acknowledgment.

I am greatly indebted to Dr. F. W. Clements, Director of the Australian Institute of Anatomy, Canberra, for the loan of five specimens (in the Edmund Milne collection) described in this paper.

F. D. McCarthy.

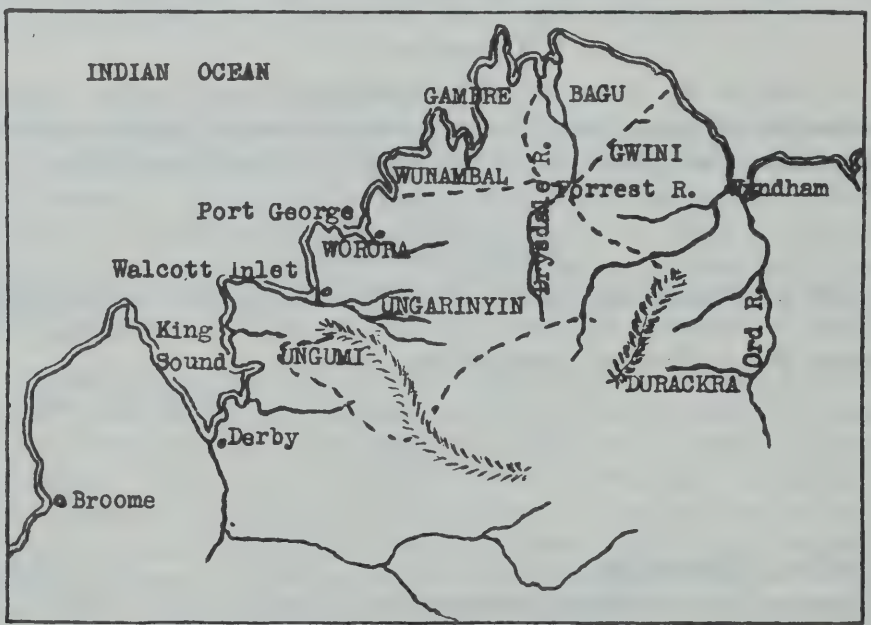
Australia: Linguistics. **Capell.**

The Languages of the Northern Kimberley Division, W.A.[1] *By A. Capell, M.A., Ph.D., Field Worker, Australian National Research Council.*

The languages that form the Northern Kimberley Group are spoken north of a line stretching from a point on the coast of the Kimberley Division a little south of Walcott Inlet, eastward to the Durack Range, which is the eastern boundary of the group. The whole area of the Kimberlies north

[1] See also articles in *Oceania*, Vol. VIII, and reprints of these, with others, in *Oceania Monograph*, No. 3, " Studies in Australian Linguistics." The system of spelling here used is a modified form of the International Phonetic Script ; *j* is used for *y* ; so *dj*, *lj*, *nj* are the palatal plosives ; cerebral consonants are written with a dot underneath, e.g. *d*, and *ŋ* is *ng* as in " sing." A colon marks a long vowel.

of that line is occupied by this group of languages. The accompanying map shows the locations. Worora is the best known. It is spoken along a relatively narrow strip of coast, from a little north of the Robinson River to a little north of the Prince Regent. Behind it lies Ungarinyin, which occupies the largest geographical area, and is spoken in a number of dialects. South of Ungarinyin was formerly the Unggumi language, but very few, if any, full blooded Unggumi now exist. North of Worora lies Wunambal country, stretching from Scott Strait eastwards and northwards. The Gunan and Gambre dialects of this region differ in vocabulary somewhat



Sketch map of the Northern Kimberley Division, with names of languages printed in capitals.

but are almost identical in grammar. On the Lower Drysdale is a language called Ba:gu, but it is not yet known just how far this stretches southwards. The Forrest River languages may be grouped under the name of a single district as Gwi:ni. These languages have all the principal grammatical features and a good deal of the vocabulary in common, which at once serve to unite them as a group, and to mark them off in one particular respect from the rest of the Australian languages. The group has a number of

special characteristics which it is the purpose of this article to outline. It must be understood that considerations of space preclude more than the merest outline, and fuller information must await the Comparative Grammar that the author hopes to bring out later.

In the Gwi:ni sentence *b-endjin bu-gala bu-ne:wur waral bu-ŋ-ana*, " man that big see him-I-did," it will be seen that all the words except one begin with the letter *b* ; in *amba a-gala a-ne:wur waral a-ŋ-ana*, " kangaroo that big see it-I-did," they begin with *a*. It is quite accidental that the nouns begin with the same letter as the dependent words ; as a rule they do not. The agreements, however, are the necessary parts, and these are to be called the Concord. It is imperative that when a word is learned in these languages the type of concord should be learned with it. This concord-type is called its Class. The adjectives, pronouns and verbal objects, and in some languages, other words too, must agree with the word on which they depend. In Gwi:ni there are five common Noun Classes ; in Ba:gu there are the same number, but Wunambal has only three, and Worora, Ungarinyin and Unggumi four each. There is also a plural to the class of personal nouns. No other nouns are inflected for number. The first two classes in Gwi:ni were illustrated above. The other three are shown in the following sentences : Class III. *Wundala gala wune:wur waral wu-ŋ-ana*, " Tree that big it-I-saw " ; Class IV. *Balma mu-ŋgala mu-ne:wur waral mu-ŋ-ana*, " Cave that big it-I-saw " ; Class V. *Wana na-ŋgala na-ne:wur waral na-ŋ-ana*, " Honey that big (lot) it-I-saw." In Gwi:ni some parts of the body take prefixes to express the possessive, and these possessive prefixes require the Concord also. The same applies to the word *-alŋi*, " name." Thus *ŋ-alŋi ŋ-alali ŋ-injiŋga garidj ŋ-unbiriŋma*, " my-name new this call me-they-did " ; *g-alŋi g-alali g-injiŋga garidj g-injiriŋma*, " your name new this call you-they-did," and so on through the other possible persons. Counting these Prefix Possessive Concords, Gwi:ni would thus have twelve noun classes, the personal plural forming a thirteenth. As a rule, it will be possible to omit them, as they are not found in the other languages except Ba:gu. The principles on which nouns are grouped into classes are not quite clear yet, and they seem to differ in different languages. Thus, Ungarinyin, Unggumi and Worora have a feminine class formed by the prefix of *nj-*. Wunambal has only three classes, of which Class I contains all living beings, whether masculine or feminine. In Gwi:ni and Ba:gu, Class I contains living persons, Class II

most other living beings, such as animals, which in Ungarinyin go into Class I or II according to their sex.

It is interesting to see how these different groupings in different languages cause nouns to change class from one language to another. The type sentence given above for Class II in Gwi:ni becomes a Class I sentence in Wunambal : *amba b-ila bu-ne:wur mara bu-ŋ-auwune,* " kangaroo that big see it-I-did." So with other nouns indicating sentient things, but those of Classes III and IV tend to be the same in all the languages—and the idea expressed by words of the same class even when the words are completely different. The entire result is that a sentence in a Northern Kimberley language often looks strikingly like one in a Bantu language of South and Central Africa, even though the actual words are not the same.

The pronoun is a very important part of speech, and the pronouns of the Northern Kimberley languages are notably homogeneous, and at the same time they show clear agreements with those of other Australian languages, more than does the noun system. They distinguish an inclusive and exclusive first person plural, i.e. in Gwi:ni *naŋa:ra* is " we, including you to whom I speak," and *njara* is " we, excluding you to whom I speak." The following are the pronouns :

	Gwini.	Wunambal.	Worora.	Ungarinyin.	Unggumi.
Sing. 1	*ŋaia*	*ŋaia*	*ŋaiu*	*ŋe:n*	*ŋaiiŋga*
2	*na:*	*na:*	*ŋundju*	*njaŋan*	*miiŋga*
3	*bini*	*bini*	*aua*	*andu*	*jinja*
Plur. 1 inc. ..	*naŋa:ra*	*naŋa:ra*	*ŋari*	*ŋarun*	*ŋarun*
1. exc. ..	*nja:ra*	*nja:ra*	*ari*	*njarun*	*njarun*
2	*ni:ra*	*nu:ra*	*njiri*	*nurun*	*njurun*
3	*breni*	*breni*	*arga*	*banda*	*argeiŋga*

Matters are not really as simple as here depicted. There are pronoun series which mean " I myself," " I alone," " for my part," and in Worora a set of negative pronouns. In the third person, agreement is made with the class of the person or thing referred to, and there are suffixes to show whether a thing is near, a little removed, far, or out of sight. So in Gwi:ni the positions are given (Class I) by *binjiŋga, bugarga, bugala, bigia.* There are corresponding forms for other classes. All the languages share these forms for distance. Objective pronouns are missing, because the pronoun object is incorporated into the verb, as a prefix to the prefix of subject. The sentences above which illustrate the class also illustrate the pronoun object as in *waral bu-ŋ-ana,* " see him-I-did." These may be called again by a Bantu term, pre-prefixes.

The fact that adjectives and pronoun demonstratives also take the class concord in the Northern Kimberley languages appears, too, in the above examples. Only in Worora is any real comparison of adjectives found, and indeed while it introduces no really new principles, Worora has added a number of refinements not found in any other languages. Unggumi tends to agree with Worora in these.

The verb is a complicated part of speech. Verbs are conjugated by prefix for person and number, and by suffix for tense. Comparatively few verbs, however, take simple prefixes. If they do, then the order is object-subject-verb. Thus Gwi:ni *bu-ŋ-alŋar-ia*, him-I-spear-shall; *amba a-ŋ-alŋar-aŋ*, kangaroo it-I-spear-did. Intransitive verbs are the commonest types of this conjugation, but in these languages the object prefixes can be added to them in a way that they cannot in most European languages. Ungarinyin says *ŋ-elu*, I will come, but also *balja dji-nd-elu*, hither me-you-come, i.e. come here to me.

The bulk of verbs are compounds, the first element of which is a kind of verbal noun, the second a variable auxiliary, which alone is conjugated. So in Unggumi *mara njinuan*, I see you; *mara ŋanuan*, you see me. The root meaning of the word *mara* is "light," while the auxiliary seems to have been at first "*bu*," and meant "hit," so that the phrase is "I hit you with light." The root *bu* has become very disfigured with usage, and its meaning has dwindled to "action of one thing on another." In Worora it can still be used literally, and in Ungarinyin one says *ŋuyen ŋanbun*, "my stomach hits me" for "I am hungry." Another auxiliary is the verb "go," another "do," others "fall" and "be" (though "be" is not used as a simple copula), Ungarinyin says *djo:ŋia*, "I will (go) drink" because in actual fact a native usually has to go and look for a water-hole, while he has his food in a bag and therefore *mindjal ama*, "eat he-does." Gwi:ni can say *wul-gu ŋarambun*, "sleep-to I-go," and *wul ŋaruwambun*, "sleep I-fall." It also says *djeli ŋaraŋ*, I am afraid. Worora similarly says *gulunu ganuŋ*, "asleep he-is," and Unggumi *golun wai ŋanjauwa*, "asleep lying I-fall."

Tenses are marked by suffixes, and though some languages are more complicated than others, the continued tenses in *-eri* or *-iri* are common property, e.g. Gwi:ni *wanana:ra wulula bindi:ri*, long sick he-was, Worora *a:ra ŋanuŋiri*, "sick I-am-being." The negative is usually marked both by a word before the verb and in infixes within the verb. In the western languages it varies for tense, but in Gwi:ni and Ba:gu and to some extent in

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Wunambal it is only an " aspect," identical for all tenses. Worora has subjunctive, potential and obligatory moods as well as imperative, but generally the suffix *-ŋari* shows any kind of subordination. So Ungarinyin, *wana mara andjon-ŋari, bumanaŋga balja djindelu,* " if you see him, tell him to come to me," and Gwi:ni *maoba dabar brei-ŋari, ŋawuŋu bera:ra bindi,* " when the old man died, his son became chief."

Distinction of voice is made in Ungarinyin, Unggumi and Worora, but in the other languages a passive is constructed with the verbs " to be " or " to fall," and only the reflexive form is made by prefix.

Numeration is poor, as usually in Australia. The commonest roots are *-e:ri,* one (agreeing in class), and *madjeri,* two (without agreement). Worora is peculiar in forming its words for " two " and " three " by adding the dual and trial to the word for " one " (with class agreements) : Class I *iaruŋ,* " one," *iaruŋ-andu,* " two," *iaruŋ-uri,* " three." The other languages except Wunambal lack words for three altogether, but Wunambal has *bieri, madjerimia, madjerina, berlana, berlaga,* up to five.

The vocabulary of the Northern Kimberley languages has more in common than most Australian languages. Probably half of it will prove, on final analysis, to be of common origin. This is a very high percentage for Australia, and very little of it is shared with the rest of the continent. These facts are indicative of common origin for both language and people. They have a good deal of characteristic culture also in common, particularly the remarkable cave paintings about which much has already been written. These are found as far east as the Ba:gu tribe, but not amongst the Gwi:ni, whose marriage system also differs. There is a persistent agreement in legends that the Wandjina, the human figures that form so important a part of the paintings, came from the western sea and went eastwards. In Gwi:ni country culture comes from the east. The Gwi:ni dead go to Bundulmiri, who lives on an island in the east, while those of the other tribes go to an island off the west coast. There may be evidences of origins in these facts.

The languages surrounding this group on the east and south have not yet been much studied. On the east the Djerag dialects share a large number of words with Gwi:ni and sometimes have words found in the other Northern Kimberley languages but missing from Gwi:ni. Djerag also incorporates the pronoun object, but has only two noun classes. Bunaba and Njigina, spoken about Fitzroy Crossing and Derby respectively, have a good deal of

Northern Kimberley vocabulary, but as there is no resemblance in grammar this may be actual borrowing.

The classification of nouns reappears in the Ngolok Wanggar language of the Daly River area, where a fourfold grouping is present, with prefixes that are practically the same as those of Ungarinyin and Unggumi. The language, however, has not been published in sufficient quantity to enable any conclusions yet to be drawn. It suggests, however, that the Northern Kimberley family may extend at least that far eastwards, and the Larakiya of Darwin seems to show some points of contact with it also. Thus the eastern boundary of the family cannot yet be stated clearly.

Although limitations of space have rendered these notes worse than sketchy, and so perhaps more difficult to follow, they will perhaps serve to indicate the interesting language problem in this part of Australia, especially the fact that, just as the area presents distinct cultural traits, so it presents distinct linguistic traits, which in both instances form a fairly homogeneous whole. No dogmatic statements can yet be made, but the facts point to a migration having unity of origin different from that of the bulk of Australian culture and language.

A. CAPELL.

Australia: Ethno-Botany. **MacPherson.**

The Eucalyptus in the Daily Life and Medical Practice of the Australian Aborigines.

By John MacPherson, M.B., Ch.M., M.A., B.Sc.

Botanically speaking, the Australian landscape is dominated by two species—the eucalypts and the acacias. More commonly known by the vulgar terms—gum trees and wattles—these two species are as characteristic of our land as is the elm of England and the pine of Norway. The aborigines, being keen observers, knew their botany thoroughly and were well conversant with the properties and practical applications of these members of the vegetable kingdom. Various species of eucalyptus are in use throughout the medical world, and there is no doubt that their medicinal properties were well known to the natives of Australia.

The Tasmanian Blue Gum (*Eucalyptus globulus*), whose habitat extends from Tasmania to Victoria and southern New South Wales, was an important constituent, as regards its leaves, of the aboriginal *materia medica*. In various parts of Australia, poultices were made of bruised and heated gum leaves. For various forms of backache, no doubt chiefly

rheumatic in origin, a bed of green leaves was prescribed. In more serious cases a shallow pit was dug and the bottom was covered with hot coals. The pit was then filled with green eucalyptus leaves and the patient reclined with his naked back over the steaming mass. Precautions were taken to avoid chills. Headaches were treated by inhaling the steam of heated gum leaves. For an ordinary cold and other similar disorders, an infusion of the leaves was drunk in small quantities. Where gum trees grew in abundance, the localities were generally considered very healthy.

An aboriginal preparation called *mindi-warrum-bing* was made of heated eucalyptus leaves and native honey. This preparation was administered internally for various ailments, including severe colds and dysentery. When a serious illness was prevalent, the preparation was sometimes consumed by the whole camp. Eucalyptus oil is occasionally employed for malaria and it is interesting to know that a Queensland species (*E. tetrodonta*) was used by the natives for headaches and fevers which may have been malarial. The leaves of young trees were bruised and rubbed by the hands in a kooliman of water until the water was thick and green. It was then drunk. When I resided in Glen Innes forty years ago the White or Manna Gum (*E. viminalis*) was a prevalent species. The Ngarrabul tribe called it *horra*, and the villages of Marowan and Glencoe were called Horra-will after the large number of Manna Gums which grew in the neighbourhood. The leaves contain eucalyptol (cineole) and tannin, and the Ngarrabul blacks applied them locally for ophthalmia (*narrada mil*) as well as ingesting them for diarrhœal conditions.[1]

A curious practice was observed amongst the aborigines of Northern Queensland. Here the Lemon-scented or Citron-scented Gum (*E. citriodora*) grows. This species contains citronellal, which is closely related to oil of citronella. When mosquitoes were troublesome, the aborigines gathered many leaf-bearing branches and heaped them up in stacks some distance from the camp. The fragrant leaves were employed to *attract* the insects away from the camp. We, in our civilization, use oil of citronella to *drive* the mosquitoes away from us. The leaves of the species of eucalyptus contain many constituents, but eucalyptol (cineole) is generally considered, on evidence which is not at all conclusive, to be, medicinally, the most important constituent.

[1] Various species of eucalyptus have been used by the aborigines as fish poisons. These have already been considered in previous articles in this Journal. See Vol. I, pp. 157, 289.

In addition to the oil from the leaves, many eucalyptus species yield an exudation from the trunk and branches. This exudation is a kino. In addition to other constituents, it contains some form of tannic acid (tannin). The aborigines were well acquainted with the medicinal properties of the kinos of the various species. For example, the exudation from the Red Gum was used by the Ngarrabul tribe for medicinal purposes. Dr. W. E. Roth also relates that Eucalyptus kino (popularly known as " gum ") was employed by the Mitakoodi tribe of north-west Central Queensland—but not in the vicinity of Boulia—in the form of pills for the relief of diarrhœa. Tannin is a regular drug used for diarrhœal conditions, and, essentially, the therapeutics of these kinos are those of tannin. James Dawson relates that the " gum " of a species of White Gum was used by the aborigines of western Victoria to alleviate toothache, being plugged into the hollow of the carious tooth. The astringent sap of the Bloodwood Tree (*E. corymbosa*) and " Apple " was also used medicinally by the blacks, being rubbed over the body. The " Apples " are usually species of the genus *angophora*, which is closely allied to eucalyptus, but some species of eucalyptus are also termed " apples ". Tannin is a constituent of them all. Angophora kino was used for medicinal purposes by the Glen Innes (Ngarrabul) aborigines. In times of drought, the Yukumbul (Inverell) blacks obtained water from " apple " trees to avoid the necessity of their drinking polluted natural water. In other parts of Australia, during seasons of drought, the natives obtained water from the roots of the Red Mallee (*E. oleosa*) and the Coolibah or Dwarf Box (*E. microtheca*).

The Weir or Bull or Water Mallee (*E. dumosa*) was termed Nabbari by the Ooldea tribe of South Australia. During a funeral service, mourners waved branches of this shrub about the grave and finally buried them with the body at the foot of the grave. Concerning the Water Mallee, John Cairns wrote that its uses were known long before the advent of white civilization. He stated that " Our black immediately proceeded to cut a yam stick about five or six feet long, which he pointed with his tomahawk, and then, tracing the root by a slight crack discernible on the surface of the ground, he dug underneath it and then prized it up as far as he could. Going further from the tree he repeated the operation, until he had, perhaps, fifteen or twenty feet of the root laid bare. He now broke up the root into lengths of three or four feet and, stripping off the bark from the lower end of each piece, he reared them against the tree, leaving their liquid contents to drop into a pannikin. On holding a piece of root horizontally no water

is to be seen, but the moment it is placed in an upright position a moisture comes over the peeled part, until the pores fill with water, which drops rapidly. The natives, when travelling in search of water, on finding the tree, usually cut off a large piece of the bark to serve as a dish, which they place at the foot of the tree, leaving the broken roots to drain into it whilst they smoke a pipe or light a fire. The root, on being broken, presents to view innumerable minute pores, through which the water exudes most copiously; from a pint to a quart of pure water is procurable from a root of twenty to thirty feet long. Some roots which we carried with us to the home station gave out a little moisture the next morning, but, the weather being excessively warm, rapid evaporation had no doubt taken place." Other species of mallee were also used by the natives for their water yield in dry areas.

E. corymbosa is the Bloodwood tree of north Australia, Queensland, New South Wales and Victoria. Dr. W. E. Roth has written that, in some parts of Queensland, the aborigines, who termed the tree *re-chin-di*, employed the exudation for medicinal purposes. It was either taken internally, in the form of a decoction, or dusted on locally, in powder form, for venereal sores. Some years ago a Queensland black, named Romeo, had a violent altercation with his gin and endeavoured to kill her. Unfortunately another black woman, named Lizzie, was in close proximity. A spear thrown at Romeo's wife struck the tree behind which the wife was sheltering, glanced off and struck Lizzie in the abdomen. She pulled out the spear and then fell down. Some bloodwood exudation was heated until it was very hot. It was then placed in the wound and covered with leaves and mud. The patient, however, did not survive. The astringent exudation from this tree owes its therapeutic properties to tannin, and it was in frequent use by the aborigines of New South Wales.

In Tasmania a species of eucalyptus was known to the early settlers as the Cider Tree. This was *E. gunnii*, the Ribbony Gum. The saccharine sap of *E. gunnii* soon ferments into a sort of cider. On the River Shannon and the Lake Districts this species was tapped by the natives, as the maple is in Canada. At the proper season, holes were ground into the trunk. The sweet saccharine juice or liquor, which has a taste resembling treacle, flowed profusely from the apertures and was collected in a hole at the foot of the tree. To prevent the depredations of birds and other animals, the holes were kept covered with flat stones. After standing for a while fermentation was set up naturally and a coarse kind of wine or cider was

formed which, when drunk in excess, was intoxicating. In the early days of settlement, this cider was in great demand in Tasmania both by the blacks and the white stockmen. At Christmas time, in 1826, the Lake Arthur blacks indulged in a great eucalyptus cider orgy. The exudation resembles Malabar kino. It contains much so-called "gum" which is coloured red by a kino-like substance and it has a high tannin content.

The bark, as well as the resinous exudation, of various species of eucalyptus entered into the aboriginal pharmacopœia. The barks contain kino-tannic acid and other constituents. The inside bark of *E. microtheca*, Coolibah, Tangoon or Dwarf Box in Queensland was beaten up and applied as a poultice for snake-bite. In Queensland also, Dr. Walter Roth reported that, in the Mitakoodi tribe, for severe headache, a poultice was made from box-tree bark, hammered, pounded and soaked in hot water. The mass was applied to the affected part, either on a piece of bark or held in the hand. The Queensland natives also used the inside bark of *E. pruinosa* for the relief of rheumatic pains. The patient sat in water and the stripped bark was wound tightly round the chest and body and damped with water if the affected area was not immersed. The Glen Innes tribe used the bark of the White or Manna Gum (*E. viminalis*) moistened with water, as an outward application for conjunctivitis or ophthalmia.

Throughout the whole Australian continent different eucalyptus barks were employed medicinally for diverse purposes by various tribes. The roots contain tannin, and James Dawson relates that, in western Victoria, the aborigines ingested the small root of a narrow-leaved gum tree, infused in water, for indigestion. This is rather remarkable as tannin, although somewhat beneficial for some forms of indigestion, is generally deleterious for that disorder.

The Manna or White Gum, also sometimes termed Yarra, yields, in common with other species of eucalyptus, a considerable quantity of manna. This is a curious saccharine mucilaginous substance. It is a secretion from the tree during the months December to March, especially after rain. It occurs in irregular, rounded, small masses, opaque white in colour and with a sweet, pleasant taste. It is secreted from the leaves and slender twigs as the result of injuries or punctures made by insects, especially the "locusts" or cicadas. The small masses often have an aperture at one end, showing the attachment of the small twig from which the manna has oozed in liquid form. It is at first transparent and of the consistence of thin honey. Later

it solidifies and drops off. It is water-soluble and contains melitose. In common with the lower animals it was eagerly eaten by the blacks, as it lay on the ground or was strewn over the trunks or branches. It was sometimes mixed with wattle gum to form an article of aboriginal dietary. The Tasmanian natives also used this manna for food. Some of the Victorian tribes made liquors from different flowers, honey, gums and manna. These, after slight fermentation, were possibly mildly intoxicating. The liquor was generally prepared in the large wooden bowls (*tarnuk*) which were to be seen at all native encampments. Bushmen use manna to check diarrhœa ; but it is really considered to be a mild laxative. In the mallee districts of New South Wales, Victoria and South Australia the Bull Mallee (*E. dumosa*) occurs. From this species is obtained another kind of manna, called in the aboriginal vocabulary *lerp* or *lárap*. This was also largely eaten as food. At certain times this manna so abundantly covers the leaves as to give the shrub an iced appearance. The manna is composed of masses of aggregated cones, each covered with woolly filaments. In colour, the masses are dull yellow or opaque white. Beneath the domes are insect pupæ. These belong to several species (*Psylla eucalypti*, etc.) included in the family Psyllidæ. Lerp manna is sweet-tasting, and consists mainly of starch. It is of no medicinal value.

On the other hand, the honey of the various species of eucalyptus is of considerable value and is consumed all over Australia as a welcome constituent of the native diet.

JOHN MACPHERSON.

ANTHROPOLOGICAL SOCIETY OF VICTORIA PROCEEDINGS

A New View of Quaternary Cave Art. *Summary of a lecture delivered before the Society by Percy A. Leason on 25th May,* 1938.

In considering quaternary cave art, many authorities have abandoned their usual calm and scientific caution to become enthusiastic about the liveliness and naturalness of action in the pictured animals. It is also generally accepted by these authorities that the primitive artists were impelled by a definite desire to depict characteristic actions. There are excellent reasons for asking whether the general acceptance of these beliefs has not been too casual.

There are many strange features in the pictured beasts which, in the light of what is now believed about the artists' aims and methods, cannot be reconciled with any idea of " rapid " eyesight, or even with the idea of reliable eyesight and perception. The most important of these strange features is the marked differences between the degree of naturalness in the bodies and heads and that in the legs and feet. The unnaturalness did not always come in because of any lack of appreciation of *form* in extremities ; it was as frequently due to their *arrangement.*

A fault of the very first importance is that the beasts to which the legs belong depart from the ways of their kind and stand like ballerinas on the very tips of their pedal extremities This occurs so frequently and not only among representations of hooved animals but also among the bears and felines, that it can be definitely described as a characteristic of quaternary art. This is remarkable if we think of the artists as hunters who knew intimately the ways of horses, bison, deer and boar.

Mr. Leason gave a very careful analysis of many cave paintings in support of his assertion.

Another curious feature of cave art is that despite their excellent suggestion of bulk, of bone and flesh, very few of the best pictured animals convey the impression of having the weight that we should expect of them. Many have a decidedly fairy-like poise. There is an absence of muscular tension about the drawing and no sign that the law of gravitation is being defeated by a muscular and bony prop.

Some years ago, when Mr. Leason first saw reproductions of quaternary cave art, he was impressed by one thought : *What a remarkable fact that these artists of so many thousand years ago should have made direct studies of dead animals ! !* A subsequent study of cave art literature left surprise that current ideas of the artists' desire for life and action were so firmly established and that a theory that the artists used dead models had not been advanced. It is in this theory that we find the answer to many troublesome questions.

Mr. Leason then proceeded to give overwhelming evidence of the correctness of his theory. If we view the pictured animals as dead ones, we find a satisfactory explanation of another feature that might also be regarded as a characteristic of this cave art. This is *the angle from which the artists studied many of their models.*

Mr. Leason then showed several photographs of dead animals and pointed out their close resemblance to the pictured animals of the caves. He also gave details of an experiment in reconstruction by means of plasticene models and photography which further supported his argument that these early artists used dead animals as their models.

ANTHROPOLOGICAL SOCIETY OF NEW SOUTH WALES: PROCEEDINGS

Dafal: A Melanesian Initiation Rite.[1] *Summary of a lecture delivered before the Society by the President, Mr. F. L. S. Bell, M.A., on February 15th, 1938.*

Initiation rites, similar in character to those observed by the lecturer in Tanga, have been described by other observers on the mainland of New Ireland. However, this is the first detailed ethnological description of the ceremony.

There is a definite system of "rank" in Tanga, and *dafal* initiates are always drawn from "noble" families. They may be of either sex, and are generally in the immediate prepubertal stage. A special house, with a rather high-ridged roof, is constructed close to the house of the chieftain of the clan inaugurating the ceremony. Inside this house a conical-shaped bamboo cage is constructed. This cage is sufficiently large to take two initiates.

The cage is light-proof, and everything in connection with the *dafal* house is taboo. The initiates are kept in the cage for about ten months, fed on the finest foods, their bodies are rubbed with scented oils, and they are not allowed to tread upon the ground. On being removed from confinement they attend a large feast, at which they are decked with valuable ornaments. A ritual fight between the women of those two clans to which the initiates are related through their parents also takes place on their exit from the *dafal* house.

The ostensible reason behind the whole ceremony is desire for increased personal and family prestige. Functionally speaking, the rites are strongly remininscent of the *aggregation* rites connected with the actual death of a member of the community. In the latter case, these rites allow of an adjustment being made in the social personalities of the bereaved. In the case of *dafal*, the adjustment is made in the social personality of the initiate.

An Ethnologist in the Dutch East Indies. *Summary of a lecture delivered before the Society by Mr. F. D. McCarthy, Dip.Anthr. (Syd.), on March 15th, 1938.*

Mr. McCarthy summarized the discoveries of fossil man in the Dutch East Indies—*Pithecanthropus erectus*, *Homo Modjokertensis*, *Homo soloensis* and Wadjak man—and the prehistoric cultures of Java which comprise the Patjitan Chellean type industry and the flake industries from the Trinil and Soloensis layers. In comparison with these finds, no evidence has yet been brought to light to prove that Pleistocene man ever inhabited Australia or that the aborigines lived on the continent in Pleistocene times.

The implements of the Mesolithic Hoabinien culture of the Malay region are the same in type, form, workmanship and size as in south-eastern Australia, and it is probable that this is the earliest known culture in Australia. The microlith of southern Australia has not been recorded from Malaya, although it occurs in India.

The hammer-dressing technique which was employed on artefacts throughout north-central and eastern Australia is an early Neolithic trait in Malaya, and is therefore a comparatively late introduction to Australia. There is a great variety of Neolithic implements in south-east Asia and the Malay Archipelago, and to a less degree in New Guinea, but these

[1] For a full description of this rite, see Bell, F. L. S., "Dafal", *Journal of Polynesian Society*, Vol. XLV, No. 3, pp. 83-98.

types did not penetrate Australia. The serrated arrowpoint of the Toalian culture which survived in the Celebes until Bronze times is remarkably similar in technique to the Kimberley serrated spear point that a relationship cannot be doubted.

The Bronze Age is well developed in the Malay Archipelago, but little is known about the Iron Age. The concentric circle and the spiral art of central and north Australia are typical of the Malayan Bronze Age decorations, and it is possible that the art motifs spread into Australia without the knowledge of metal working, as has happened in Melanesia.

The life of the modern people was briefly described. Visits were paid to the Negritto and Senoi of the Perak jungles, who are the most primitive peoples in the Malay Peninsula, and amongst them, as in the Celebes and in Java, Australian types are to be seen.

Thus both archæology and physical data establish the path of the aborigines to Australia via the Malay Archipelago and New Guinea, in which latter island skulls have been found which can only be classified with the Australian aborigine.

Mr. McCarthy discussed the differences existing between the cultures of the Australian aborigines, the Melanesians and the Malay peoples, and the gradual spread of advanced traits from Asia to Oceania.

Finally he dealt with the scope of the paper read at the Congress of Prehistorians of the Far East which he attended in Singapore.

An Archæologist in Libya. *Summary of a lecture delivered before the Society by Mr. Douglas Fox on April 5th,* 1938.

As a member of the late Professor Frobenius' expedition to the Libyan Desert, Mr. Fox was particularly interested in the pictographs of this part of Africa. He illustrated his talk with many slides and gave the Society a rare opportunity of seeing how archæological work is carried out by trained European scientists. The difficulties in the path of the expedition were stupendous, but the results as depicted on the screen appeared to be most valuable.

Mr. Fox is a member of the Frankfort Museum expedition to the Kimberley Division of north-west Australia and, after hearing and seeing what good work he and his fellow scientists have done in Africa, we can look forward to very profitable results from their work in Australia.

The Aborigines as they Were. *Summary of papers delivered before the Society by Professor A. P. Elkin, Mr. W. J. Enright, Mr. R. H. Goddard and Mr. F. D. McCarthy on April 19th,* 1939.

Mr. McCarthy said that the material culture of the aborigines of N.S.W. belongs to a culture area which comprises Victoria and the eastern part of South Australia. The weapons, carved trees and art motifs of this area distinguish it from Queensland and Central Australia. Within its sub-areas may be noted, such, for example, as the fertile coast where the people were fishermen, and the interior where they were hunters and seed gatherers. The cylindro-conical stones, *kopi* widow's caps and grave markers, carved boomerangs and grooved quartzite axes, demarcate the Darling River as a most important sub-area.

In single traits there is also a local variation, e.g. the mortar, asymmetrical chipped *elouera* and point of the coast, and the large millstone, symmetrical *tula* and *pirri* point of the interior ; the bark shields of the coast, the widespread parrying shields, the broad shields with apices from the Murray River ; and the various forms of the spear-thrower ; the simple

bark canoe of the Murray-Darling Rivers and the pleated-end type of the coast ; the grooved rock carvings of eastern N.S.W. and the pecked carvings of the far west.

No indication of the antiquity of the N.S.W. aborigines has been revealed. The relationship of the pebble implement industry of south-east Australia with the Mesolithic Hoabinien culture of Indo-China, and the Malay Peninsular and Archipelago, and of the similarity of the microliths of Victoria to those of India are the only items which throw any light on this question.

As a counterblast to the constantly recurring charges of cruelty and apathy towards the aborigines made against the early white settlers of this State, Mr. Goddard pointed out that in the first instance the native population was never very large, and secondly, for every native that died a violent death, thousands died from natural causes, introduced diseases and spiritual starvation.

He produced evidence that many of the early white officials displayed a kindly interest towards the aborigines, encouraging them to become agriculturists and making every effort to find them a place in the world of the white man.

He concluded his talk by emphasizing the fact that the real tragedy of the aborigine lay in the terrific damage done to his magico-religious life by the infiltration of white ideals.

After a brief consideration of the historical sources of our knowledge of the aborigines of the central and south coast of New South Wales, Professor Elkin drew the attention of the meeting to the depopulation which has occurred among these natives.

He next considered the relation between the various local groups and the languages of the coastal tribes and reminded us how remiss the early settlers were in the collection of grammars and vocabularies of the aborigines.

The social organization and the secret rites and beliefs of these coastal peoples were different from those of their neighbours to the north and the west. The Professor concluded by emphasizing the immense value of a knowledge of these beliefs in the task of acculturization.

Mr. Enright opened his address by considering the relation between the fertility of various parts of New South Wales and the original native population. He made a careful survey of the food situation and stressed the importance of the natives' hunting rights. All too often do we forget that between certain areas native boundaries existed which prevented the inhabitants of one area from hunting within that of another. Of this fact, the early settler was ignorant.

Mr. Enright gave personal testimony to the extreme sanctity of many aboriginal rites and beliefs. He also pointed out the relation between totemism and a balanced food supply. In conclusion, he emphasized the vital significance of the abovementioned phases of aboriginal life in relation to the preservation of their culture and *ipso facto* to the preservation of the race.

The Aborigines as they Are. *A lecture delivered before the Society by Mrs. C. Tennant-Kelly on May 17th,* 1938.

A summary of this lecture will appear in the next issue of the Journal.

Travels in South America. *Summary of a lecture delivered before the Society by Miss Ruth Bedford on June 21st,* 1938.

The lecturer described her arrival in Lima and her expedition to a number of Inca ruins in the neighbourhood of that city. She gave a description of certain shards and complete

specimens of Inca pottery which had been dug from prehistoric graves. From Valparaiso she crossed the Andes by train, motor car and launch and after attending a conference in Buenos Aires she visited the people of the pampas and witnessed their folk dances and listened to their music.

She concluded her talk by an account of the lake district of southern Chile and the past and present history of the Araucanian people.

Fiji : Social and Political. *Summary of a lecture delivered before the Society by Mr. R. H. Lester of the Fijian Administration on July 19th,* 1938.

The lecturer first outlined the ancient form of Fijian government. He described the functions of the sacred chief, the war chief (*vunivalu*), and the *tunitonga*, who was adviser to the *vunivalu* and also guardian and matrimonial agent to the girls of chiefly rank. The *vunivalu* also had a herald who supervised the *yanggona* mixing and organized the various feasts. There was an advisory council of elders comprising representatives of chiefly families in the tribe and including tributary chiefs.

The present form of government comprises Village Councils, which discuss and arrange such matters as housebuilding, sanitation, weeding and planting. The District Councils discuss and grant applications to lease native lands. At this juncture Mr. Lester gave an outline of the Fijian system of land tenure. The District Councils also arrange the *solevus* or visits to neighbouring tribes with gifts, accompanied by feasting and dancing. They meet monthly.

The Provincial Councils meet annually or more frequently if required. They are presided over by the Provincial Commissioner or the Secretary for Native Affairs. These councils discuss taxation and finance, education and agricultural development. They also comment on the resolutions passed by the Council of Chiefs and review the Programme of Work, which provides communal work for all the natives of the province during the year.

Mr. Lester concluded his most interesting lecture by describing some of the more colourful Fijian ceremonies such as the welcome to a visiting (or returning) chief prior to his landing, and the *yanggona* ceremony, which is a special drinking ceremony, celebrated immediately on the landing of the chief. Of particular interest was the lecturer's account of a *meke* which celebrated the recent coronation of His Majesty George VI.

Native Navigators of the Pacific. *Summary of a lecture delivered before the Society by Miss E. Bramell, M.A., Dip.Ed., on August 16th,* 1938.

Arising out of the problem of the populating of Australia and the far scattered islands of the Pacific comes a consideration of the modes of transport whereby the islands were reached by migrating peoples. This the lecturer chose for her subject together with an account of the vessels and skill in navigation possessed by the natives of Oceania. Captain James Cook found people speaking dialects of a common tongue in occupation of a vast area, and was astounded at the knowledge shown of far distant islands, which they visited with supreme confidence at no little risk.

Before telling of the exploits of the Polynesian voyagers, the lecturer described the simple watercraft of the natives of Tasmania and of Australia, the latter affected in recent times by influences from the north via Malaya and Torres Straits. The canoes of Papua, the Massim

area, the north coast of New Guinea and neighbouring island groups, the Solomon Islands, Santa Cruz and Fiji were dealt with in turn. A glance at the war canoes of the Maori turned the attention to the great outrigger and double canoes of the Polynesians, in which they gradually discovered and settled the islands of the Pacific. Born navigators, disaster for them held no terrors ; they trusted to the gods and to their sea wisdom to carry them through. The canoes of Hawaii, the Marquesas, Tuamotu, Tahiti and Samoa were fashioned each according to its local tradition. For Micronesia, the Marshall Island outrigger canoe and its nimble crew was selected for comment, and the methodical skill of these navigators instanced in their cane charts of sea currents and winds.

A swift glance at the Malay proas, the apex of the development of the plank canoe, completed the survey of Pacific craft. There was observed in the progression from simple to complex types an improvement in comfort and stability, in speed and seaworthiness. In recent years the larger canoes have fallen into disuse, and there is an increase in small outrigger canoes ; rarely are ambitious voyages attempted. Yet the achievements are still vivid memories. The natives of Oceania practised a science of navigation aided by the stars, and by a knowledge of currents and winds and seasonal changes. Their skill would have roused the envy of contemporary classical civilizations, and has won the admiration of modern seamen who pay homage to the seafarers who first showed the way across the Pacific.

Religion among the Australian Aborigines. *Summary of a lecture delivered before the Society by Miss Joyce Burgman on September 20th,* 1938.

On the basis of information derived from such writers as J. G. Frazer, Spencer and Gillen, Durkheim, Lowie and Goldenweiser, it was argued that there are beliefs and practices among the Australian Aborigines which are definitely religious in nature and may therefore be discussed as a religion.

The rites observed by the Aborigines may be divided, roughly, into private and public, but these largely overlap. The more private rites primarily affect the individual, while public rites are concerned with the well-being of the community. The ceremonies discussed were firstly those concerned with birth, baptism, marriage, death and initiation and secondly, those with the increase of the totemic species, historical facts and the harvest. The most important of these are the initiation and increase rites.

Totemism, sex differences, sacred rites and symbols, the belief in an all-father, and mythology were also considered and a conclusion drawn.

Organized Violence in a Primitive Community. *Summary of the Presidential Address to the Society, delivered by Mr. F. L. S. Bell, M.A., on October 18th,* 1938.

Warfare as an organized social institution was studied at first hand by the lecturer whilst living among the Tanga of the Bismarck Archipelago. He outlined the social and political organization of the islanders and by a careful comparison of war alliances and marital alliances he concluded that the preferred type of marriage among the Tanga was one with a member of a neighbouring, hostile clan.

In considering the various forms of warfare, he pointed out that there was no tribal warfare in Tanga, that the important social unit is the clan and that it was within and between the various clans that fighting took place. After describing the organization of the fighting

units engaged in such conflicts, the President gave a careful summary of the various magical preparations and operations carried out before and during battle. He emphasized the fact that "so far as the Tangan is concerned, the concept of courage is completely absent from his world of thought. After all, a show of courage is merely a form of reaction against fear, and in Tangan society the typical reaction to a fear-situation is the use of certain tried magical formulæ."

The cannibalistic practices of the Tanga were given a social interpretation and the lecturer emphasized the formality and ritual nature of these group practices. As practised in Tanga, they were merely retaliatory actions designed to assuage outraged *group* feelings.

As in most primitive communities, the after-life of the warrior among the Tanga is quite different to that of a person who has died a non-violent death. This after-life was described and Mr. Bell concluded his address by denying the general impression that the natives of Melanesia occupied the better part of their time in internecine strife. Fighting was frequent but it did not occupy a paramount place among the social activities of the natives.

Annual Report of the Anthropological Society of New South Wales, 1938. *Summary of the report delivered at the annual meeting of the Society, October 18th,* 1938.[1]

It is gratifying to note that during the past year so many of our members were actively interested in anthropological investigations. The Council will warmly welcome inquiries, and will readily supply information to members as to the approved methods to be followed in their field work. Members just commencing field work are urged to communicate with the Council for assistance and advice.

Appeals have been made to members to forward to the Council information concerning unrecorded rock carvings, cave paintings, tree carvings, unusual types of stone implements, burial and ceremonial grounds, local traditions of the aborigines, local objects thought to be connected with the aborigines, and any other information concerning the aborigines or their relics. We feel that members have a definite responsibility to the Society in this matter. Reports from members can be properly recorded, and, where necessary, carefully investigated. There is no doubt that in this way important information can be made available to all investigators. We earnestly invite members to co-operate with the Council. There is abundant evidence that valuable information is gradually being lost because it has not been officially recorded by a society such as this, or by some other institution.

An urgent appeal was also made to members and to the general public through the daily Press to report to the Society instances of damage or of actions likely to cause damage to the relics of the aborigines, in order that the Council may take appropriate action to safeguard the relics concerned. In this matter the Council again earnestly invites members to render at all times every possible assistance. The preservation of the relics of the aborigines is one of the most urgent problems with which the Council has to deal. The relics which remain must be adequately protected, and the Society must take the initiative both in advocating suitable governmental action, and in the greater and more important task of educating the public as to the significance and value of the relics. In other words, in order

[1] The complete annual report was printed and distributed to members prior to the annual meeting.

to achieve the desired results, the Society must set out to educate the people of New South Wales in the proper care and treatment of the relics.

Several instances of possible damage to the rock carvings near Sydney were reported to the Council, and we are gratified to state that, on representations being made to the authorities and other people concerned, a prompt and courteous reply was received in every instance that the rock carvings would be left undisturbed.

Members living in the far interior in close contact with the aborigines are invited to forward information to the Council on any and every aspect of native life and culture.

During the year arrangements were made for members in all parts of the State to borrow books from the Society's library. We have evidence that this extension of our activities has been appreciated by members, many of whom have become regular borrowers of books. We extend to members an invitation to use the library to full advantage.

Donations to the library were received from Miss E. M. Allan, a copy of Sir Baldwin Spencer's "Native Tribes of the Northern Territory of Australia"; the Trustees of the Australian Museum, a set of W. E. Roth's Bulletins, Nos. 9 to 18, North Queensland Ethnography; and Dr. Ch. Absolon (Czechoslovakia), seven reprints of anthropological papers. Donations of books dealing with any aspect of anthropology are always most welcome. With the assistance of members, the Council desires to develop the library as rapidly as circumstances and funds permit.

Two issues (Vol. 2, Nos. 4 and 5) of the Society's journal, MANKIND, were published during the year, the first towards the end of 1937, and the second during August, 1938. Careful attention has been given to the journal both by the Editor and the Council. The last issue (Vol. 2, No. 5) was set up in a greatly improved form, and future issues will be set up in a similar manner. We feel sure that members will appreciate our endeavour to make the journal attractive and progressive.

We have evidence that MANKIND is growing in world-wide importance. Institutions and investigators in Australia, Great Britain, Europe, America and elsewhere are now making requests for it. During the year the sale price was increased to two shillings per copy for all issues to and including Vol. 2, No. 4, and to three shillings and sixpence per copy for Vol. 2, No. 5, and future issues.

An excursion to the kitchen middens at Bellambi was held on May 22nd. During the day the honorary secretary displayed a complete series of stone implements which have been collected at that place within recent years.

Ten meetings of the Council were held during the year.

On August 2nd the resignation of Mr. W. J. Enright was accepted with regret. Mr. Enright has occupied several positions on the Council as councillor, vice-president, president and past president. The Council desires to express appreciation to Mr. Enright for his services to the Society. Mr. G. M. Farwell was elected on September 6th to fill the vacancy on the Council.

Early in the year the Society offered a prize of £2 2s. to the student in Anthropology II at the University who presented the best essay during second term. The prize was won by Miss Joyce Burgman, who read her essay at the September meeting. The Council proposes to offer a similar prize each year in the future.

REVIEWS

Religion and Social Organization in Central Polynesia. *By Robert W. Williamson. Edited by Ralph Piddington. Cambridge University Press, 1937, xxix, 340 pp.*

"The real significance of cosmogonies will emerge from a treatment of their social functions, and of the rôle which they play in institutional activities." This sentence, appearing on its first page, will indicate in no uncertain manner the essential difference between this volume and its predecessors.

Without sacrificing or casting aside any of the detailed evidence which Mr. Williamson so laboriously collected in his lifetime study of the Polynesian people, Dr. Piddington has most successfully interpreted this evidence and, in addition, added to it the data of a later generation of Polynesian scholars.

To those already familiar with Mr. Williamson's previous volumes, "The Social and Political Systems of Central Polynesia" and "Religious and Cosmic Beliefs of Central Polynesia", the form in which Part I of the volume under review has been published will provide few surprises. Such religious concepts and institutions as the Gods, the Worship of the Gods, Taboo, Temples and Burial Places and Sacred Objects are dealt with, as before, in geographic order.

However, in Part II, entitled "The Place of Religion in the Cultures of Central Polynesia", Dr. Piddington has departed from the author's previous methods of presenting and interpreting his material. Whereas Mr. Williamson was content to assemble his facts to support a pseudo-historical reconstruction, the present editor has used them to define the cultural significance of Polynesian religion. In his own words, his general intention has been "to show that magico-religious beliefs and practices were important integrative factors in the cultures of Polynesia, that they sanctified economic and political institutions, that they acted, together with other forces, in a very positive way towards the maintenance of law and custom; and that the real significance of religion is best understood by studying the part which it plays in the integral reality of native life".

Among the ethnographic *lacunæ* discussed by the editor, none appears to be of more significance to our future study of religion than "the genetic development of faith". The reviewer heartily supports Dr. Piddington in his insistence upon the vital importance of that initial situation in which the growing individual is led to accept the truth of magico-religious dogma.

To students of Polynesian anthropology such a volume as this comes as a welcome change from the scores of monographs dealing with isolated groups of the race. The archive room of our anthropological storehouse is becoming rapidly filled with a mass of unintegrated facts. To Mr. Williamson and Dr. Piddington we are indeed indebted for a timely and valuable clearing up of the Polynesian corner of that storehouse.

F. L. S. BELL.

Fear in Primitive Society. *By Dr. H. K. Fry. Occasional Publications, No. 1, Anthropological Society of South Australia. Adelaide, 1938.*

Dr. Fry defines fear as a defence reaction against awareness of danger. The basis of his discussion is that the part it plays is primarily that of a check to the desires and inclinations. Fear and its effect on the unity of society, in primitive law, in magic and between the sexes are the chief topics treated.

He says that the primitive man who violates the social code is liable not only to punishment by his fellow men but also to terror awakened by the thought of dread disaster from a supernatural source that follows inevitably upon an evil deed.

With regard to law and order, failing direct evidence, reliance is placed on the magical procedure of ordeals. Certain forms have a reasonable basis, inasmuch as the nervousness of guilt may serve to convict the accused. The violator of an oath must await a divine or magical penalty, dread of which is an inducement to swear truly. Fear is the basis of magical procedure and the belief in magic. When fear inhibits the direct expression of a desire, resort may be had to imitative magic, i.e. a pantomime of the desired effect is enacted. It is assumed that magical power acts in a mechanical way, e.g. a bone is pointed and the victim dies.

Magic is a two-edged sword in that it is both beneficent and harmful according to whether it is used for or against the individual, thus it inspires an ambivalent attitude. It is the chief sanction in primitive law, and its handmaiden, tabu, protects the prestige of rank and the security of property. It is the essence of totemic ceremony, and persists in the ritual of higher cults.

Primitive man also peoples his world with spirits. Realistic day-dreaming is responsible for the belief in many. Spirits of the dead are seen in dreams, and the young are taught that sounds in times of ceremony are those of spirits. These spirits are strange in nature, and awaken an uneasy attitude as towards something potentially dangerous. They are allied with the dead who died through human agency strengthened by magical aid, and therefore are hostile towards and feared by humans. Human sacrifice is the result of fear, for it is an endeavour to appease the angry spirit by a substitute offering. In legends, which grow up to explain the origin and attributes of things, fear is discerned.

The attributes and functions of the sexes are dangerous one to the other. There is a clearly defined solidarity of the sexes, instanced in the secret societies established for each in many areas. Mankind's fear of incest, or marriage between near relatives, has had enormous influence on his social organization; it lies behind the custom of exogamy, which is intimately associated with totemism. Of this institution so far no clear explanation has been given, though evidently totemism, exogamy and initiation all represent compromises which the human mind has devised to control individual desire for the general good. Fear of incest is responsible for the elaborate classificatory system of relationships whereby the relative position of everyone in the group is known; it explains also the avoidance of the mother-in-law. The relationship systems emphasize the position of the stranger, who is an unknown quantity and therefore potentially dangerous.

Primitive man, though beset with many fears, is not continually conscious of them, and the mental exaltation that follows relief of fear is made an occasion of feasting and revelry.

The following conclusions are drawn: Fear when dominant is a paralysing and death-dealing agency, but when acting in concert with other emotions provides a necessary element of restraint. Partial suppression of individual activity is essential for the existence of society, and this is maintained by fear.

Aided by the creation of custom and myth, and later by religious, moral and artistic ideals, by experiencing and learning to dominate fear, man gained fortitude to combat his environment. Fear therefore represents the paradox of a necessary evil.

E. BRAMELL.

The Old-Time Maori. *By Makereti. Victor Gollancz, Ltd., London,* 1938.

Maggie Papakura, described as " sometime chieftainess of the Arawa tribe ", was, in her day, one of the best known Maori women in New Zealand. From Sophia she inherited the mantle of principal guide, and when she left for England many years ago, she was held in much esteem and affection by both Maoris and Europeans alike.

If Maggie (or Makereti, as she later preferred to call herself) had written an autobiography, the book would have been extremely interesting. For Maggie had a colourful life. It was she who escorted the late King George and Queen Mary through the thermal district, when they visited Rotorua in 1901. Maggie also visited Australia. The last years of her life, however, were spent in England—far from the land of Te Arawa, as her people are known.

On the night before her death in 1930 she asked Mr. T. K. Penniman, secretary to the Committee for Anthropology in the University of Oxford, to forward the manuscript, on which she had been working, to her people, in order " to make certain that all written was true, that nothing forbidden should be published ". Maggie was obviously homesick for Aotearoa ; it is apparent, too, that the old conceptions of *tapu*, of *makutu*, which had been ingrained in youth were still uppermost in her mind. Mr. Penniman was also asked—a curious request which suggests just how Europeanized Maggie had become—" to remove certain *karakia* ". One wonders, perhaps not unnaturally, just what qualifications he had for that task. However, Mr. Penniman faithfully fulfilled his instructions, and this handsome, well-illustrated volume is the result.

In attempting to assess its value one must remember that the authoress was a member of a tribe (or rather a confederation of tribes), that, with the solitary exception of the Ngapuhi, has for many years borne the brunt of European impact. That, of course, is not Te Arawa's fault. On the part of successive governments there has been a deliberate policy of exploiting the Rotorua Maoris for the entertainment of tourists. And of all the Rotorua entertainers Maggie had no rival. Therefore, she was essentially a product of her peculiar environment, a useful link between the old people of her race and the younger generation more accustomed to *Pakeha* ways.

As such her book is useful as the observations of a shrewd and intelligent woman. Neither is there any gainsaying the fact that she dearly loved her race and saw much in the old culture to admire.

The book is remarkable inasmuch as it is the product of a woman. Though members of her sex had a definitely honoured place in ancient Maori society, they were never the repositories of sacred knowledge. Maggie does not tell us much that is new. Indeed, much that she has published has been gleaned from the writings of others. But in those sections wherein she speaks of what she did know she is interesting, sincere, and reliable. This volume is well worth a place on the book-shelves of all admirers of her magnificent race.

ERIC RAMSDEN.

CORRESPONDENCE, NOTES AND NEWS

Australian Anthropological Association.

As a result of a conference of delegates from the Anthropological Societies of Victoria, South Australia and New South Wales, held in Canberra during the Science Congress in January, 1939, it was unanimously decided to form the Australian Anthropological Association.

The affairs of the Association will be managed by the Council of each State society in turn for a period of two years. However, this council of management shall not take any action on any matter of policy unless the approval of the affiliated societies has first been obtained in writing.

The bonds uniting the three State societies are, legally, very tenuous, but, culturally, they are unbreakable. We are all imbued with the one desire to promote the science of anthropology, and with the formation of this association that desire is no longer a vain hope but a practical achievement.

"Mankind" : Altered Status.

A glance at the title page of this issue of the journal will reveal a small but important change in the scope of MANKIND. This journal is now the official journal of the anthropological societies of Australia. This is a progressive step forward in the development of our publication. It means that our circulation is doubled and our sphere of influence is considerably widened. No alteration in the editorial policy of the journal is contemplated, and the editor feels that by participating in the activities of the two other societies through this journal, the members of each State society will develop a truer consciousness of our common aim—knowledge of Man.

Two Cylindro-cornute Stones.

Sir,

Mr Alex Eather of Bulga recently brought me two cylindrical, worked stones. One was about eighteen inches in length and was found at Thurrabri on the Namoi. It was of sandstone and was very much weathered. It was found at a depth of eight feet and above a layer of about forty flat stones, one of which bore strange markings, but, as I have so far only seen a photograph of this marked stone, I hesitate to offer an opinion as to whether the markings are natural or otherwise.

The same gentleman showed me another piece of sandstone, conical in shape, and about two inches long. It had incised markings on it, each about a quarter of an inch in length, arranged in lines around it and converging towards the tip. He found it on an old camp site at Bulga which is about twenty miles from Singleton.

Professor Elkin, to whom I submitted both, unhesitatingly pronounced the first as a cylindro-cornute stone and the second as a tip of one. With the latter was found a portion of a pecked axe head of basalt. The top portion was broken off. The edge was well ground and the curve of it excellent.

Bulga was in the country of the Darknung close to that of the Kamilaroi and on the route travelled by natives of the Mudgee district.

W. J. ENRIGHT.